

IN THE CLAIMS:

1. (Twice Amended) A method of preparing a sequence of consecutively ordered signal samples for transmission, wherein each signal sample is a digital representation of an analog signal quantity, comprising the step of:
- for each occurrence of two consecutive identical samples in said sequence, replacing the second-occurring one of said two consecutive identical samples with synchronization information.
2. (Twice Amended) A method of transmitting an incoming sequence of signal samples, wherein each signal sample is a digital representation of an analog signal quantity, comprising the steps of:
- for each of said incoming samples,
- (i) transmitting said incoming sample if said incoming sample is not identical to the sample which immediately precedes said incoming sample in said sequence, or
  - (ii) transmitting a synchronization pattern if said incoming sample is identical to said preceding sample.

3. (Twice Amended) A method of incorporating synchronization information into an input stream of signal samples, wherein each signal sample is a digital representation of an analog signal quantity, comprising the steps of:

DI  
correl

- sequentially monitoring the samples in said input stream to detect a match condition characterized by an identity between two consecutive samples in said input stream;
- if a match condition is detected, substituting the second-occurring identical sample with a synchronization pattern.

---

5. (Twice Amended) A system for transmitting a sequence of signal samples received from an input bus, wherein each signal sample is a digital representation of an analog signal quantity, comprising:

storage means coupled to said input bus for temporarily storing samples;

sample comparison means coupled to said storage means for comparing each sample with the sample which immediately precedes said sample in said sequence, and generating a match signal when said sample is identical to said preceding sample.

D2  
cont

output means coupled to said storage means and said comparison means for transmitting each sample in the absence of a match signal, and transmitting a synchronization pattern in the presence of a match signal.

6. (Twice Amended) A method of transmitting an incoming sequence of signal samples and receiving the transmitted samples, wherein each signal sample is a digital representation of an analog signal quantity, comprising the steps of:

for each of said incoming samples,

- (i) transmitting said sample if said sample is not identical to the sample which immediately precedes said sample in said sequence, or
- (ii) transmitting a synchronization pattern if said sample is identical to said preceding sample;

monitoring said transmissions at a receiving end to detect the occurrence of said synchronization pattern; and

outputting a received sample when a synchronization pattern is not detected, and outputting the immediately previous received sample when a synchronization pattern is detected.

7. (Twice Amended) A system for transmitting an incoming sequence of signal samples and receiving the transmitted samples, wherein each signal sample is a digital representation of an analog signal quantity, comprising:

transmit means for monitoring said sequence of signal samples, transmitting a sample if said sample is not identical to the sample which immediately precedes said sample in said sequence, and transmitting a synchronization pattern if said sample is identical to said preceding sample;

receive means, coupled to receive said transmission, for outputting a received sample when a synchronization pattern is not detected, and outputting the immediately previous received sample when a synchronization pattern is detected.